1899MNRAS..59..165P

32 Reappearance. Time late; seen close to limb, but actual reappearance missed.

39 Reappearance. Time fairly good.

		h	m	s
No. 39	G.M.T.	10	47	0·6
45	do.	10	51	32·2
46	do.	11	0	57·5
32	do.	11	31	39·3
39	do.	11	44	4·6

Stonyhurst College Observatory:
1899 *January* 10.

Occultations of Stars during the Lunar Eclipse of 1898 *December* 27, *observed at the Liverpool Observatory.* By W. E. Plummer, M.A.

The following observations of occultations during the eclipse of December 27, last year, were made in consequence of a communication received from the Pulkova Observatory. The conditions for observation were not very favourable. A heavy gale of wind blowing at the time interfered with the counting of the seconds of the clock, and the definition was much below the average. In consequence of this bad definition faint stars became confused with the limb when nearly in contact. As far as possible the stars have been identified with those given in the catalogue supplied by the Pulkova Observatory. It is curious that no star has been identified with those observed between $11^h\ 24^m$ and $11^h\ 50^m$, but it is believed that the entries at the time of observation and the reductions are correct. I have nothing to add concerning the position of the observatory to that given in the *Nautical Almanac*. The power employed was 78 on an 8-inch equatorial.

Immersion.

Name of Star.		G.M.T. of Disappearance. h	m	s	Remarks.
Anon.		10	43	59·5	Total phase not complete
B.D. 23° No.	1398	10	46	3·3	Very faint at limb
23	1402	10	50	5·2	
23	1403	10	59	37·4	
22	1385	11	23	59·6	Doubtful to some seconds.
Anon.		11	30	46·6	
		11	32	42·4	
		11	44	48·5	
		11	46	30·7	
		11	48	36·0	Possibly. B.D. 22° No. 1392
B.D. 22	1397	12	13	14·0	
23	1415	12	13	59·1	

Downloaded from http://mnras.oxfordjournals.org/ at University of Michigan on June 17, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1899MNRAS..59..165P

Emersion.

Name of Star.	G.M.T. when first seen. h m s	Remarks.
Anon.	11 11 17·2	Possibly some confusion with B.D. 22° No. 1368.
B.D. 22° No. 1369	11 12 49·9	
23 1389	11 25 40·3	
Anon.	11 50 22·8	Should have been seen earlier.
B.D. 23° No. 1407	12 6 29·1	Very well seen.
23 1402	12 9 31·6	
22 1385	12 18 48·1	Left a satisfactory impression of accuracy.
23 1403	12 18 58·1	

Liverpool Observatory:
1899 *January* 10.

Observations of Eros (1898 *DQ*), *made at the Royal Observatory, Greenwich, with the* 30-*inch Reflector of the Thompson Equatorial.*

(*Communicated by the Astronomer Royal.*)

Two photographs of this planet were obtained with the 30-inch reflector on 1899 January 10. The electric hand-control was used to diminish the trail of the planet in Right Ascension. In the first photograph this was not effected very satisfactorily, and though the planet is shown plainly the trails of the stars are not uniform. In the second photograph two exposures of five minutes and four minutes respectively were given, and the images of both stars and planet are good. The second photograph only has been measured in the astrographic simplex micrometer. Four measures were made of each image of the planet by one observer, and two of each of the reference stars in reversed positions of the plate.

The positions of the reference stars were obtained from the catalogue of the *Astronomische Gesellschaft* Albany, and Leipzig II. Zones, the latter being kindly communicated in manuscript by Professor Bruns, the director of the Leipzig Observatory. Rectangular coordinates were computed from these and compared with the measures; linear corrections of the form $ax+by+c$ and $dx+ey+f$ were deduced and applied to the measured coordinates of the planet and reference stars.

The apparent position of the planet thus obtained is :—

Date.	G.M.T.	App. R.A.	App. Dec.	log. Δ.	Cor. for Par R.A.	Cor. for Par Dec.
	h m s	h m s	° ′ ″		s	″
1899 Jan. 10	6 11 27	23 14 30·31	5 38 58·8	0·1890	+0·14	+4·15

Downloaded from http://mnras.oxfordjournals.org/ at University of Michigan on June 17, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System